

# NEWSLINE

Published weekly for employees of Lawrence Livermore National Laboratory

Friday, March 30, 2001

Vol. 26, No. 13



## FROM THE DIRECTOR'S OFFICE

Jeff Wadsworth

### Science Day focuses on Lab's reason for being

Every day is science and technology day at the Laboratory. But last week, the Laboratory set aside one special day to acknowledge its scientific and technological accomplishments, and the employees who create these achievements.

In the past, some of these achievements have been showcased when dignitaries visit the Laboratory, or during an occasional open house. But last week's Science Day was set aside for all of us to take stock of the excellent contributions our Laboratory provides to the scientific and technical communities.

Through Science Day, the Laboratory showcased the major investments it has made in supercomputing since the Laboratory's inception. These investments have made possible our major achievements in every aspect of science and technology, as the day's presentations proved.

NNSA Administrator Gen. John Gordon, Director C. Bruce Tarter, UC Provost and Senior Vice President C. Judson King, and James Decker, the acting director of the DOE Office of Science, all spoke of the Laboratory's strengths in supercomputing and collaborative research.

Our own scientists and engineers gave technical presentations that highlighted the breadth of scientific supercomputing at the Laboratory. Bill Dannevik discussed terascale simulation as a powerful tool for the exploration of turbulent flows, while Computation AD Dave Cooper gave an overview of the role of modeling and simulation in the Stockpile Stewardship Program. Michael Colvin provided an understanding of the growing role of computation simulations in biological research, while Thomas Diaz de la Rubia showed how terascale computing can be used to predict materials performance and aging through multiscale modeling. Starley Thompson updated us on the effect of human activity on global climate change; Giulia Galli discussed quantum simulations as a fully predictive approach to the study of condensed matter systems, and Jave Kane showed how computational science is scaling astrophysics to the laboratory. Through David McCallen we learned how computer simulations can

See **DIRECTOR'S OFFICE**, page 8

## NNSA looks at key stewardship issues

By David Schwoegler

PUBLIC AFFAIRS OFFICE

ALBUQUERQUE, N.M. — Representatives from the National Nuclear Security Administration met this week with principal contractors and stakeholders in a forum for Nuclear Security Decision-Makers. Facilitated by Monitor Publications president and publisher Ed Helminski, the gathering included the directors of the three weapons laboratories and managers from the major opera-

*Gen. John Gordon mentioned his pleasure with NIF and ASCI, as part of 'across the board progress' toward regaining congressional support.*

tions within the complex. The general objective was

an exchange of views and information among government officials, private industry executives and non-governmental organizations on critical national issues facing the nuclear weapons complex. While there was initial focus on the major projects needed for competent science-based stockpile stewardship — such as the National Ignition Facility, the Accelerated Strategic Computing Initiative

See **NNSA**, page 5

## EPD's Brendan Dooher goes to Washington

By Don Johnston

NEWSLINE STAFF WRITER

Brendan Dooher of the Environmental Protection Department is looking forward "to having lunch with Albert Einstein" at the National Academy of Science in Washington, D.C.

Dooher is the first Laboratory engineer to be selected for the prestigious National Academy of Engineering (NAE) fellowship that will allow him to spend a year in the nation's capital learning about and shaping science policy. The NAE is a part of the National Academy of Science.

A larger-than-life statue of a contemplative Einstein sits outside the NAS building across the street



DON JOHNSTON/NEWSLINE

Brendan Dooher

from the Mall and a stone's throw from the memorial to the president who created the academy of science in 1863 — Abraham Lincoln. "I've been told about the courtyard and I want to go have lunch with Einstein."

Washington will certainly offer Dooher plenty of food for thought on a variety of NAE projects, including a study of energy problems in California and the Western United States, and anticipating engineering challenges of the next 20-30 years as part of the Engineer 20/20 effort.

"It's really hard to predict what's going to happen," he says, noting that even 10

See **ENGINEER**, page 8

## UC collaboration founds Edward Teller Education Center

By Anne Stark

PUBLIC AFFAIRS OFFICE

The University of California, Davis, in collaboration with the UC Office of the President, UC Merced and the Laboratory, has established the Edward Teller Education Center adjacent to the UC Davis Department of Applied Science at LLNL.

The center, funded by UCOP and LLNL, will provide opportunities for professional development for K-12 teachers working with participating school districts within the greater Livermore Tri-Valley area and the San Joaquin and Sacramento Valleys. In addition to UC Davis, UC

See **DAS**, page 8

## 'Work-Life' Web guide launched

How do you juggle the demands of work, family and personal needs? There are plenty of options, and now you can find them on the Lab's new Work-Life Web Guide.

The Web page is part of an ongoing Laboratory effort to enhance and improve the quality of services to employees that address work-life concerns. This guide is intended to be a tool to help employees better understand work-life issues and provide information and options for dealing with these issues.

"Each day we face the



challenge of balancing the competing demands of work, family and personal responsibilities," said Art Wong, manager of the Employment & Organ-

See **WEB**, page 8



**A blooming  
success**

— Page 2



**Lab women  
in science**

— Page 3



**Think poison  
prevention**

— Page 5



# LAB COMMUNITY NEWS

## Weekly Calendar

Technical Meeting Calendar, page 4

Friday  
**30**

**The Tri-Valley Science & Engineering Fair** is open to the public today through Sunday at the Blackhawk Museum. Admission is free for Lab employees and their families. The fair features 210 projects by students from 18 Tri-Valley schools. The fair is open today and Saturday from 10 a.m. to 5 p.m. and Sunday from 10 a.m. to 3 p.m. The museum is 4 miles east of I-680 on Crow Canyon Road at Camino Tassajara.

...

The next brown bag on **how to enhance your financial security** by participating in the Tax-Deferred 403(b) will be held from 12:15 to 1:15 p.m. today in Bldg. 571, room 2301. This information session will be repeated on the last Friday of each month throughout 2001. Attendance is open and no pre-registration is required. For additional information, see the Website at <http://www.llnl.gov/jobs/benefits>.

Sunday  
**1**

**Daylight-saving time** begins. Don't forget to set your clocks forward one hour.

Monday  
**2**

The Center for Global Security Research presents **"Nuclear-Powered Submarine Proliferation"** at 11 a.m. in Bldg. 132S, room 1781. Kenneth G. Weiss, a CGSR consultant speaks on the potential spread of nuclear-powered submarines in the developing world and its possible impact on nuclear proliferation, regional stability and environmental and operational safety. Contact: Tami Alberto, 2-5969.

...

LLESA and the American Red Cross are co-sponsoring a **blood drive** April 2-6 in Bldg. 415. Hours are 10 a.m. to 4 p.m. April 2 and 7:30 a.m. to 1:30 p.m. April 3-6. Schedule appointments in advance at <http://www.beadonor.com> (company code: LLNL) or by calling Mandy Monk at 510-594-5211.

Tuesday  
**3**

The Systems and Network Department is sponsoring **Apple Day** in the Bldg. 543 auditorium and lobby area from 10 a.m.- 4 p.m., featuring an OS X demonstration at 10 a.m., and an application software update at 11 a.m. and 1:30 p.m. New Apple product displays and demonstrations throughout the day. Contact: Candace Gittins at [gittins1@llnl.gov](mailto:gittins1@llnl.gov).

Friday  
**6**

Peg Jordan presents **"When Steel Buns Don't Inspire, What Does?"** at noon in the Bldg. 123 auditorium, a funny, eye-

opening look at the commercial fitness industry. Sponsored by the Lab Women's Association and Health Transitions for Women. No charge. All employees invited. Contact: Marnette Yeager, 2-1217.

## Everything's coming up daffodils



DON GONZALEZ/TID

Germaine Clark (center) and Sheran Clark (right) assist a Lab customer during the American Cancer Society's Daffodil Days fund-raiser. Final sales totaled \$21,585, an increase of \$2,665 over last year.

## IN MEMORIAM

### William Bell

William E. Bell, an electrical technologist, died March 13 in Byron. He was 64.

Bell worked in Electronics Engineering until retiring in 1990. A native of Los Angeles, he lived in Contra Costa County for 38 years. He was a member of Calvary Community Church in Brentwood.

Survivors include his wife Miriam; son, William; stepdaughters Nicole and Yvonne; and seven grandchildren. Contributions in his memory may be made to Calvary Community Church, P.O. Box 1478, Brentwood, 94513.

### Leroy Cushing

Services have been held for Leroy Cushing, a Lab retiree, who died March 1 in Stockton following complications from a stroke.

Cushing was a tool and die maker and supervisor in Materials Fabrication. He retired in 1985, after working at the Lab for more than 29 years.

Cushing was born and raised in Oakland and lived in Manteca for 25 years. He served in the Korean War as a staff sergeant in the Army. He was a member of Livermore Elks and Escape RV.

Survivors include his wife of 49 years, Marie, who also worked at the Lab as a library supervisor. A son, Victor, and a daughter, Nadeen, four grandchildren and one great grandchild also survive him.

Contributions in his memory may be sent to the American Heart Association.

### David Raphael

David E. Raphael a former nuclear physicist and professor, died at his Belmont home of cancer on Feb. 14. He was 67.

Raphael taught economics and business management at the University of San Francisco for 15 years.

Raphael earned a bachelor's degree in physics from USF in 1956 and went on to join the Navy as an officer, where he served on the USS Hornet. He left active duty in 1959 and remained on reserve until 1972. After leaving active duty he took graduate courses in physics at UC Berkeley and joined the Lab as a nuclear physicist.

In the 1960s, he began doctoral work in economics at St. Louis University. He eventually went on to work for SRI International, and worked as a consultant for the Federal Aviation Administration and the National Academy of Science. He was also chief executive officer of Marcar Management Institute of America and the founder and president of Silicon Valley Roundtable of the National Association of Business Economics.

Survivors include his wife, Regina; daughters, Caroline and Ann; and four grandchildren.

Burial with full military honors took place at Golden Gate National Cemetery.

Contributions may be sent to a scholarship in his name at USF McLaren School of Business, 2130 Fulton St., room MC119, San Francisco 94117-1045.

## Trade gas-guzzling mowers for electric mulcher credit

Did you know you could trade in your old gas lawn mower for a credit toward an electric-mulching mower? With this mower exchange, you can help reduce air pollution, prevent gas spills, recycle grass clippings and enjoy a beautiful yard the natural way.

Alameda County residents can exchange their gas-powered mowers for savings on mulching mowers on Saturday, March 31, from 9 a.m. to 3 p.m. at the Alameda County Fairgrounds in Pleasanton. Alameda County residents will receive \$100 off an electric mower or \$75 off a push reel. There are a limited quantity of mowers available, and the discount is only available with a mower exchange.

Gas-powered mowers must be drained of all oil and gas and an ID is required showing residence in Alameda County. Compost bins will also be available for purchase at the Alameda County event. For more information, call Jeanne Nader, 510-614-1699.

For Contra Costa County residents, the electric-mulching mower one-day rebate events will begin at 9 a.m. Saturday, April 21, at the El Cerrito Home Depot, 11939 San Pablo Ave., El Cerrito,

and at 9 a.m. Saturday, April 28, at the Concord Home Depot, 2090 Meridian Park Blvd., Concord. Rebates of \$100 will be available to the first 125 residents with trade-in gas mowers in El Cerrito and the first 231 residents with trade-in mowers in Concord. Trade-in gas-powered mowers, with all gas and oil drained, are required to qualify for a rebate, and rebates/mowers are available while supplies lasts. For more information, call Bart Carr, 299-1522.

## Newsline

Newsline is published weekly by the Internal Communications Department, Public Affairs Office, Lawrence Livermore National Laboratory (LLNL), for Laboratory employees and retirees.

Contacts:

Managing editor: Lynda Seaver, 3-3103

Writers: Sheri Byrd, 2-2379; Don Johnston, 3-4902; Elizabeth Rajs, 4-5806

Designer: Julie Korhummel, 2-9709

Distribution: Mail Services at LLNL

Public Affairs Office: L-797 (Trailer 6527), LLNL, P.O. Box 808, Livermore, CA 94551-0808

Telephone: (925) 422-4599; Fax: (925) 422-9291

e-mail: [newsline@llnl.gov](mailto:newsline@llnl.gov) or [newsline@llnl.gov](mailto:newsline@llnl.gov)

Web site: <http://www.llnl.gov/PAO/Newsstand/internal-comm.html>





AROUND THE LAB



Women scientists discuss LLNL career success

By Elizabeth Campos Rajs  
NEWSLINE STAFF WRITER

Five long-time Lab women spoke candidly about why they went into science, what brought them to the Lab, what has kept them here, and what advice they have for young women scientists.

Edna Carpenter, Luisa Hansen, Dorothy Ng, Pam Poco and Faith Shimamoto were featured speakers in a panel discussion last week as part of Women's History Month.

"Women's History Month is a time to reflect on the accomplishments of women and remind folks we have made significant accomplishments," said Lorie Valle of the Affirmative Action and Diversity Program. "Many of the women here are pioneers; they are leaders and role models in their own right."

Luisa Hansen, who joined the Lab in 1959, said physics was not her first career choice.

"My first choice of a career was medicine. But since I was the eldest, my parents said no, it would be too expensive. My youngest brother is now an M.D.," she noted wryly. "My second choice was engineering. But my father said, 'Who will trust a woman to do the calculations for a building?' So my second choice was down. My third choice was mathematics and that led me into physics."

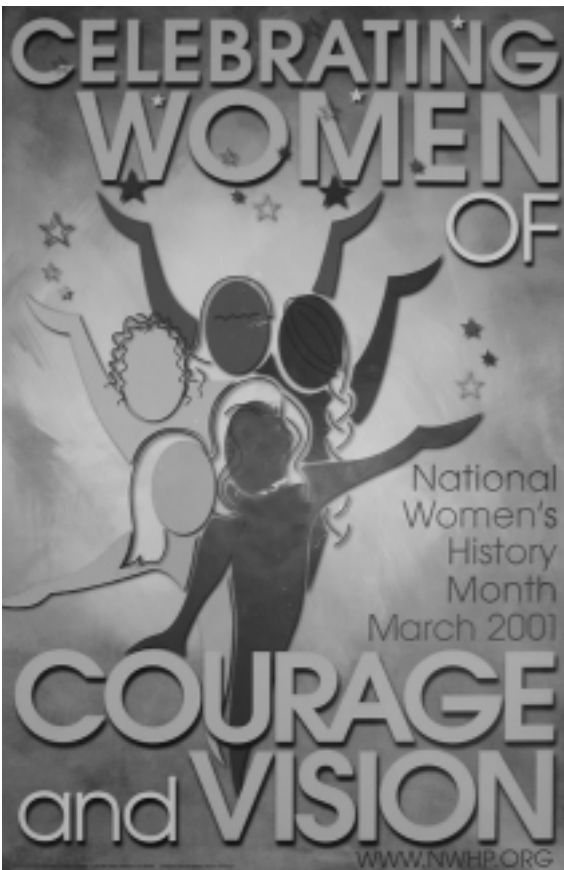
She earned her Ph.D. in physics at UC Berkeley in June 1959, gave birth to her son in July and was hired by the Lab in December of the same year.

"My husband got a position at Lawrence Berkeley Laboratory so I was limited to jobs in the Bay Area. Livermore was the only place that didn't object that I was a woman and offered me a position immediately," Hansen recalled.

During her 40-year career at the Lab, Hansen has published 170 papers and was named a fellow of the American Nuclear Society in 1989. She counts among her greatest successes a program that began in 1970 on the transport of neutrons and photons through materials of interest to national defense and fusion reactors. The program was duplicated in several countries and she was invited to discuss her work at meetings around the world, including France, Germany, Russia and Japan.

"In order to have a happy and successful career — and there is no difference for men and women — you must be a positive person," Hansen offered. "Scientists are extremely competitive, so regardless of gender, there will be problems. For me, the positive and direct approach is the best approach. Men sometimes don't know how to relate to a woman colleague. Be assertive, be open and show you can do the work. If there is an injustice, speak out."

Edna Carpenter, a computer programmer who worked at the Lab from 1952 until her retirement in 1996, said she originally intended to teach mathematics. But after graduating from UC Berkeley, she took the civil service exam in math, passed it and was offered a job in the Bureau of Standards in Washington, D.C. After a year, she returned to



Posters illustrating the achievements of Lab women are on display in the Visitors Center.

California and was hired by Livermore, joining the computations group as a mathematician.

"I define my success as having completed my college degree in mathematics when everyone thought I was crazy to be pursuing a degree in mathematics, and having worked all my life at something I really enjoyed doing," Carpenter said. "My successes were being able to do such a variety of work. The Lab had more computers than anyone else and offered many opportunities to take classes and learn."

Carpenter, who took four years off following the birth of her son, said she was also grateful for the opportunity to work part time for several years while raising her son.

Dorothy Ng, who is a mechanical structural engineer, was directed to study math at a Catholic girls school in Hong Kong. "We didn't have a choice. The school decided your career for you," she explained.

Her boyfriend inspired her to become an engineer when he told her of his dreams to build a bridge over the bay. "I thought if he could do it, I could do it."

The relationship ended, but not her inspiration. She went into civil engineering and was hired at the Lab in 1978, after spending several years at home raising her family.

"Before the Lab, I was a genuine civil engineer, laying out gutters. I came to the Lab as an analyst, but I wanted to be an engineer. I was the only person in my group who only had a bachelor's degree, so I went back to school," Ng said. "The Lab gave me the opportunity to advance my education so I would con-

tribute to the Lab as an engineer." The highlight of her career was supporting the magnetic fusion energy program and proving to sub-contractors that she knew what she was doing, she said.

"I had a group leader who told me once, 'Dorothy, I've given you many assignments and you did a darn good job at all of them.' I have carried that with me throughout my career," Ng said.

Faith Shimamoto, an engineer at the Lab since 1975, said she was raised in a traditional Japanese American family, well trained in the fine art of homemaking.

"But I'm motivated by obstinance. I wasn't supposed to do math, so I did math. I wasn't supposed to do science, so I did science," she said. "I was always looking for a challenge. When I went to UC Davis in 1970, only 1 percent of the engineering graduates were women."

She came to the Lab as a student from UC Davis with a bachelor's in engineering.

"In the last 25-plus years, I've had 10 really different jobs. The most fulfilling thing was the team I built for each of those projects," Shimamoto said. "When I look back, I see five to six great teams that I was central to building. The Lab creates a very rich environment with a lot of opportunities to work."

One of the keys to her early success, she said, were two great mentors.

"My first boss really took me under his wing. I was very fortunate to have two wonderful mentors here," she added.

Pam Poco, the ES&H assurance manager in Chemistry & Materials Science, first came to the Lab as a summer student and was hired after she graduated in 1975.

She counts among her successes a patent for a solar rotary kiln she designed as part of a thermochemical hydrogen project she managed.

"The Lab really took a chance and gave me an opportunity to reach out into an area I wasn't that familiar with, and I had success," Poco said.

She worked as a chemist until 1989, when she was asked to help prepare C&MS for the ES&H Tiger Team inspection in 1990. She was later the first female chair of the ES&H Working Group.

Asked about any frustrations at the Lab, Poco said "the Lab keeps giving me too many good opportunities. Years ago, I was offered a job as an affirmative action coordinator. I wanted to do my science, but decided to try it. As it turned out, it was great and opened many doors for me," she said.

"There are two sides of courage that have played a role in my career. If you think of it in terms of ice cream, I'm a new flavor. How am I going to get someone unfamiliar with me to try me? It takes courage on behalf of the people taking a chance on you," she said. "Make yourself familiar by taking the opportunity to prove yourself."

Life as a 'Hapa' is topic of diversity presentation by Kip Fulbeck

Kip Fulbeck, an associate professor of Art Studio and Asian American Studies, will discuss growing up as a "hapa" when he presents "I Hope You Don't Mind Me Asking, But..." Fulbeck's presentation takes place at 1:30 p.m. Wednesday, April 4, in the Bldg. 123 auditorium and is part of the Diversity Speaker Series, sponsored by the Affirmative Action & Diversity Program.

Following the presentation a "dialogue with the speaker reception" will be held in the West Cafeteria.

Fulbeck combines improvisation, stand-up comedy, "slam" poetry, political



Kip Fulbeck

activism and personal stories to explore his own life as a "hapa" — slang for mixed racial heritage with partial roots in Asian and/or Pacific Islander ancestry. Fulbeck is Cantonese, English, Irish and Welsh. Fulbeck will also discuss media imagery of Asian men, interracial dating patterns and icons of race and sex in the United States.

Fulbeck is an associate professor at UC Santa Barbara and performs solo shows

nationwide. He rose to prominence in 1991 with the video "Banana Split," about multiracialism. His first novel, "Paper Bullets," will be published this month.

Fulbeck has performed solo shows nationwide. His videos have aired on PBS, the New York Video Festival, the World Wide Video Festival in The Hague, the Videonale in Bonn, Germany, the International Video and Electronic Art Festival in Montreal and the Singapore International Film Festival.

In 1995 and '96 he served as a visiting artist at the U.S. Embassy in Kuala Lumpur, Malaysia, where he co-founded and curated the first Asian American Film Festival.



NEWS YOU CAN USE

**Systems & Network Department**



*Put yourself in the Palm of our hands, and we'll show you the latest in computer software, hardware, parts and peripherals.*

**Computing Resource Center**

**Open House**

**Thursday, April 5**

**8 a.m to noon**

**Bldg. 141, Bay 2**

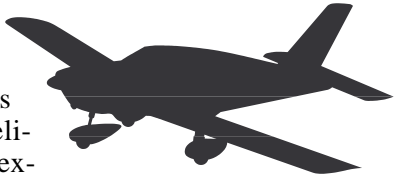
- Visit the CRC parts room & see what's on hand.
- Talk with our contract administrators about the inner workings of various hardware & software service agreements.

**Macs • Dells • PDAs • More**

**BRIEFLY**

**UC-Lab collaboration opportunities**  
The UC Office of the President (UCOP) has issued requests for proposals (RFP) for two programs of special interest to Laboratory researchers.  
The Campus-Laboratory Collaborations (CLC) Program is seeking pre-proposals for three-year collaborative research projects between the Laboratory and the UC campuses. Approximately \$1 million is available for the first year of these projects.  
A second RFP has been issued for a new initiative, the Campus-Laboratory Exchange (CLE) Program. The goal of the CLE Program is to enhance and facilitate collaboration and cooperation among the 10 UC campuses, LANL and LLNL through encouraging greater exchange of people between the campuses and the Labs.  
Both proposals are due May 1. To download the RFPs see: <http://labs.ucop.edu/internet/research/>

**Aerial photography of Lab scheduled**  
A small fixed-wing aircraft is expected to fly over and around LLNL for about four hours on Monday, April 2. The aircraft will be taking a series of aerial photos of the Lab and will fly at least 1,000 feet above the site.  
Another flight of about four hours, this time a helicopter, is expected on April 21.  
All flights will take place during daylight hours and follow Federal Aviation Administration requirements. Each flight will be coordinated through the Livermore airport control tower to avoid other aircraft traffic.  
For more information about the flights, call 4-4026 or e-mail [heffner1@llnl.gov](mailto:heffner1@llnl.gov)



Technical Meeting Calendar

**Friday 30**  
**INSTITUTE FOR GEOPHYSICS & PLANETARY PHYSICS**  
"Gravitational Waves From the Early Universe," by Craig Hogan, University of Washington. Noon, Bldg. 319, room 205 (open area). Contact: Joanna Allen, 3-0621.

**Monday 2**  
**UC DAVIS, DEPARTMENT OF APPLIED SCIENCE**  
"Development of Infrared Chemical Sensors Bases on Quasiphasematched, Periodically Poled Lithium Niobate Sources," by Scott Bisson, Sandia National Laboratories. 4 p.m., Bldg. 661 (Hertz Hall), room 7 (open area). Refreshments served at 3:30 p.m. for a "meet the speaker" session before seminar and at 5 p.m. after the seminar. Contact: Estelle Miller, 2-9787.

**CENTER FOR GLOBAL SECURITY RESEARCH**  
"Nuclear-Powered Submarine Proliferation," by Kenneth G. Weiss, CGSR consultant. 11 a.m., Bldg. 132S, conference room 1781 (uncleared area). Contact: Tami Alberto, 2-5969.

**Tuesday 3**  
**LC CUSTOMERS' MONTHLY MEETING**  
9:30 a.m., Bldg. 111, Poseidon Room (cleared area). Contact: Teresa Delpha, [taf@llnl.gov](mailto:taf@llnl.gov).

**SYSTEMS & NETWORK DEPARTMENT**  
"Apple Day at the Lab." Bldg. 543, auditorium, 10 a.m. to 4 p.m. There will be four presentations: 10 a.m., "An OS X Demonstration for the Technically Savvy," by Mike Mills, senior systems engineer; 11 a.m., "Application Software Update," by John

Martellaro, senior consulting systems engineer; 1:30 p.m., "OS X Demonstration for End-Users, with an OS 9.0 Comparison and Helpful Hints," by Mills; and 2:30 p.m., a repeat of the "Application Software Update," by Martellaro. Contact: Candace Gittins, [gittins1@llnl.gov](mailto:gittins1@llnl.gov).

**Thursday 5**  
**SYSTEMS & NETWORK DEPARTMENT**  
The Computing Resource Center (CRC) will hold its first open house from 8 a.m. to noon, Bldg. 141, Bay 2. View the latest in computer software, hardware, peripherals and parts. The parts room will be available for visitors to see what's on hand and contract administrators will be available to discuss the inner workings of their various contracts; what services are available, and how to sign up. Refreshments will be provided. For more information, contact Candace Gittins, [gittins1@llnl.gov](mailto:gittins1@llnl.gov).

**Friday 6**  
**INSTITUTE FOR GEOPHYSICS & PLANETARY PHYSICS**  
"Quasar-Illuminated Dust Reflection Nebulae," by Kenneth Chambers, University of Hawaii. Noon, Bldg. 319, room 205 (open area). Contact: Joanna Allen, 3-0621.

**GEOPHYSICS & GLOBAL SECURITY**  
"Large-Scale Discrete Finite Element Method in Geomechanics: Current State and Future Challenges," by Jamshid Ghaboussi, University of Illinois at Champaign-Urbana. 9:30 a.m., Trailer 1478, Franciscan Room. Contact Francois Heuze, 3-0363.

**Monday 9**  
**INSTITUTE FOR SCIENTIFIC COMPUTING RESEARCH**  
"Numerical Simulations of Flows With Two Viscous Liquids," by Yuriko Renardy, Virginia

Polytechnic Institute and State University. 10 a.m., Bldg. 451, room 1025 (uncleared area). Contacts: Petri Fast, 4-2649, or Leslie Bills, 3-8927.

**INSTITUTE FOR SCIENTIFIC COMPUTING RESEARCH**  
"Textbook Multigrid Efficiency in Solution of Reynolds-Averaged Navier-Stokes Equations," by Boris Diskin, ICASE, NASA Langley. 2 p.m., Bldg. 451, room 1025 (uncleared area). Contacts: Jim Jones, 3-5194, or Leslie Bills, 3-8927.

**Tuesday 10**  
**H DIVISION**  
"Molten Semiconductors: Semiconductor to Metal Transitions in IV-VI Compounds and in Selenium Under High Pressure," by Jean-Yves Raty, National Fund for Scientific Research, Belgium. 10 a.m., Bldg. 319, room 205 (open area). Contacts: Giuila Galli, 3-4223, or Darlene Klein, 4-4844.

**Friday 13**  
**H DIVISION**  
"Periodic Composites: Tailoring Thermal and Optical Properties," by John Albrecht, Naval Research Laboratory. 10 a.m., Bldg. 319, room 205 (uncleared area). Contacts: Andrew Williamson, 2-8285, or Darlene Klein, 4-4844.

**The deadline for the next Technical Meeting Calendar is noon, Wednesday, April 4.**  
Send your input to [tmc-submit@llnl.gov](mailto:tmc-submit@llnl.gov). For information on electronic mail or the news-group [llnl.meeting](mailto:llnl.meeting), contact the registrar at [registrar@llnl.gov](mailto:registrar@llnl.gov).



## NEWS OF NOTE



# Prevention is the key to curbing hazards of poisons

By Dale Sprouse

TID

Working with chemicals and hazardous substances is serious business. The Occupational Health and Safety Administration (OSHA) estimates that about 32 million workers are potentially exposed to one or more chemicals in the workplace.

Man-made and natural chemicals in the workplace that can be hazardous include pharmaceuticals, pesticides, polymers, acids and petrochemicals. There are even workplace substances not commonly regarded as hazardous that can put employees at risk; this includes such substances as cleaners, paints and photocopier toner.

In all, says OSHA, there are more than a half million chemical products in the workplace and hundreds of new ones are being introduced annually.

The risks to workers depend upon the substance and the type and degree of exposure. Some chemicals, says OSHA, may cause irritation, allergic reactions or sensitization. Chemical exposure may contribute to many serious health effects such as heart ailments, kidney and lung damage, sterility, cancer, burns and rashes.

The Laboratory has developed an extensive safety program to protect employees, visitors, offsite individuals, and the environment from chemical, physical, or pathological properties of hazardous materials. The program is detailed in the Laboratory's ES&H Manual, which contains general procedures for safely and legally obtaining, receiving, tracking and transporting hazardous materials.

The ES&H Manual also contains requirements to protect the health and safety of personnel and the environment, and to comply with applicable Department of Energy (DOE) orders as well as federal, state and local regulations.

## Tips to prevent accidents

The Occupational Safety and Health Administration advises that you follow these basic procedures to prevent accidental exposure to hazardous materials:

- Know the substance you are handling, and the specific hazards you face. Keep all identification labels intact.
- Use proper personal protective equipment and see that it fits properly. Follow approved practices for cleaning and storing the equipment and report any damage. Know how to use first-aid equipment, eyewashes and emergency showers.
- Wash thoroughly after handling any hazardous materials, at the end of the shift, before and after eating.
- Obey all safety rules for handling, using, storing or transporting hazardous materials. Know emergency alarm signals and procedures. Take job safety seriously.

Several documents and volumes of the ES&H Manual contain requirements pertaining to handling, using or transporting hazardous materials and waste.

The key to handling chemicals or other hazardous substances safely, advises Hazards Control industrial hygienist George Fulton, is to learn about the hazards of the material with which you are working and how to protect yourself from them.

Material Safety Data Sheets are an ideal source for learning about how to safely work with a particular substance, says Fulton. An MSDS provides information on a product's ingredients, its health effects, precautions you should take when

using it, how to handle and store it safely, and emergency procedures you should take should you accidentally become exposed to it.

An MSDS can provide you with information on the physical characteristics of the chemical — such as its boiling point, vapor pressure, vapor density, solubility in water, appearance and order, specific gravity and water reactivity.

Individuals wanting MSDS's for materials they work with should check with their supervisor, facility point of contact or a member of their local ES&H team. MSDS's also are maintained online through the Laboratory's Chemtrack system (<http://chemtrack.llnl.gov:1650/livehtml/MSDS/MSDS1.html>).

Another way to learn about the hazards you face when working with a particular chemical is to read the warning label that is attached to it. Warning labels identify the chemical and its hazard level and provide information on physical and health hazards.

Warning labels may provide other information, too — such as how to avoid injury or illness when using the material, first aid information, procedures to follow after fires, leaks or spills, and handling, storage and disposal details.

Employees should read the warning label each time they use any chemical and tell their supervisor if a label is damaged or missing.

Employees also are encouraged to become familiar with the ES&H Manual, which discusses ES&H management requirements, policies, plans and procedures, general and specific hazards, and controls for biological and chemical substances and environmental hazards and controls. The ES&H Manual can be found online ([http://www-rl.llnl.gov/es\\_and\\_h/esh-manual.html](http://www-rl.llnl.gov/es_and_h/esh-manual.html)).

"The way to work safety with any substance is to follow ISM," advises Fulton. "Define the scope of your work. Analyze the hazards. Develop and implement hazard controls. Perform work within those controls. And seek ways to continuously improve."

## NNSA

*Continued from page 1*

(ASCI), the Dual-Axis Radiographic Hydrodynamics Test Facility (DARHT), and the Z-Machine — two key problematic threads were universally woven through the reports and presentations.

The first dealt with aging infrastructure. Throughout the complex, aged facilities, many dating back to the Manhattan Project, are beyond the point of practical repair, and will continually require ever-increasing costly maintenance. The second dealt with an aging workforce, where critical skills are at risk of being lost to retirements. Employee recruiting and retention is vital, and recruiting has become increasingly difficult in all markets.

## NNSA perspectives

Via satellite link, the conference opened with live video from Washington, D.C., first with opening remarks from New Mexico Sen. Pete Domenici, followed by the keynote opening delivered by NNSA's Administrator, Gen. John Gordon. He mentioned the new operating contracts that recently had been signed throughout the complex, including the extensions with the University of California.

Gordon also stressed the need for effective security. He stated that he wouldn't accept the concept of a conflict between science and security. He is implementing an integrated approach to safeguards and security management. Gordon mentioned his pleasure with the work performed on both the NIF and ASCI projects, as part of "across the board progress" toward regaining congressional

support. He mentioned that more work was needed in the important area of pit production and recertification.

Ralph Erickson, acting principal deputy administrator for Operations in NNSA/DP followed Gordon, stressing the need for enhanced cyber security. He added a key message that, "funding will never be as good as it once was, but things are getting better." He added that Gordon wants a "corporate approach" to managing the complex.

## The laboratories speak

The three weapons lab directors spoke on their perspectives of the most pressing needs. Paul Robinson of Sandia emphasized the important role of nuclear weapons in the world order, and that U.S. nuclear weapons play a crucial role in preserving world peace. Robinson stressed that the U.S. stockpile must be able to "deter any nation or sub-national entity from using any weapon of mass destruction against the United States or its allies."

John Browne of LANL expressed his three "pressing needs" as people, facilities and efficiencies. Browne reiterated the importance of NIF, ASCI and DARHT, adding the need for programs for proton radiography and advanced hydrotesting. He expressed concern about the ability to train the next generation of stewards. In this regard he's made it a goal to recruit 50 percent of new hires at the entry level, adding that it's important to attract candidates before they receive their Ph.Ds.

Livermore Director Bruce Tarter spoke of the "next phase change in the stockpile stewardship program" and a modern production complex "where capability is much more important than capacity." Tarter added that Livermore recently

underwent a major people change that was skills-based, and effectively changed the character of the workforce. Regarding the NNSA infrastructure, Tarter added that merely staving off the worst doesn't suit the future. He urged participants to create a culture that "exchanges technical support" rather than "building monasteries."

A later session captured participant interest so well that questions had to be terminated 30 minutes into the dinner hour. The topic was recruiting and maintaining the engineering and scientific workforce. Lab Executive Office Ron Cochran represented Livermore and advocated a trilogy of world-class facilities, world-class people, and stable funding following "a mission that inspires." He added that the degree of difficulty of recruiting and retaining personnel has increased now that Silicon Valley firms are encroaching near Livermore, saying that "the high-tech competition is moving in." Cochran lauded projects such as ASCI that "touch so many young people at colleges and universities."

In a separate session, former Livermore Director Johnny Foster addressed the forum on maintaining the reliability, safety and security of the nuclear stockpile while recognizing the demands of rebuilding the infrastructure. Foster spoke of his role on "The Foster Commission," citing the importance of meeting near-term production demands, and stressing that stockpile certification is a process that must overcome all uncertainties. "It is not just paperwork," he emphasized.

Monitor publications include *Weapons Complex Monitor* and *Nuclear Weapons & Materials Monitor*. Conference details can be found at [www.exchangemonitor.com](http://www.exchangemonitor.com).





# CLASSIFIED ADS

Check out the Employee Ads Web Services site at:  
[https://www-ais.llnl.gov/llnl\\_only/apps/newsline/ads](https://www-ais.llnl.gov/llnl_only/apps/newsline/ads)

**AUTOMOBILES**

1987 Camero, 86,630 orig. miles, recently smogged, new standard trans/clutch, CD w/amp, perf exhaust, \$3500/BO 925-373-0247

1992 - Honda LX Wagon, Orig. owner, well maintained, great mileage, extremely dependable, automatic, AC, pwr windows, antenna. Kelley BB \$7,200 asking \$7,000. 925-447-3618

1985 - Rare Convertible, Toyota Supra Clean body, white w/black interior. Needs engine. 3K OBO 209-530-9422

1995 - Ford Explorer XLT, good condition, new tires, 72K miles, charcoal gray, \$12,500. 925-455-8158

1989 - Mustang Convertible 5.0, automatic. Boyd wheels, new top, 2 yr old transmission, needs engine and wiring work. \$1,000. 925-485-0495

1955 - DESOTO Fireflight Sportsman 2dr hardtop, Hemi motor, New interior, New tires, Could use paint, Runs great, Head turner, Collector car. Only \$6,000 209-832-8723

1999 - Ford Mustang GT, 5 speed, silver w/blk leather interior. Loaded w/extras, only 18K miles, transferrable warranty and maint. protection plan, \$17,900 925-462-7017

1997 - Ford-Contour-automatic over-drive-power steering-brakes-windows-door locks-am&fm cass.-great mileage- excellent condition. 87,000 miles- \$5900. 209-836-0611

2001 - Mitsubishi Eclipse Spyder GT,Premium Package, 200hp V-6,silver w/black top,Assume lease or make offer. Must sell! 209-602-5168

1997 - Ford Explorer XLT,2WD,5.0L,4-DR,PS,PW,PL, ABS, Alarm,AM-FM-CASS-CDChgr, roof rack & more 925-454-8486

1965 - FORD Mustang K-code convertible matching numbers, awesome dependable driver- This car sold in 1989 for \$36k-on sale today \$25k 925-454-1969

1988 - GMC Van Camper Conversion, loaded, sport roof, seats six, sink, frig, pottie, awning, queen bed, 1-owner, 350V8, 160K, runs well, \$3500/BO 209-814-3111

1993 - Merc. cougar V6 88k. new tires, new lisence, exec.cond. 6,000 o.b.o. 925-373-1944

1997 - Chrysler LHS luxury car, V-6 auto, AC, AM/FM/CD, leather, excellent condition, 83K miles \$13,975 OBO 209-239-1065

2000 - VW Beetle GLS: Slvr/blk. 25k hwy miles. Pwr moonroof/drs/wndws, alloy wheels, 6 CD changer. ~30 MPG. Perfect but must sell! \$17,500. 510-836-2920

1997 - Honda Civic, 4D EX. Low mileage, 42K. AT/CC/tilt, PS/PB/PW, A/C, CD, moonroof, new tires. Excellent Condition, no dings. \$13,500 OBO 925-447-9344

1992 - Ford Thunderbird LX, 3.8L V6, AT, PS, AC, PW, PL, CC, tilt, 83K, one owner, excellent condition. \$4150 925-634-6296

2000 - Ford Contour S.E. Sport, like new, 4 door, 5 passenger, 5k miles with balance of 3 year waranty asking \$14,500 925-606-9847

2000 - SATURN, SC2, 3 dr., auto, cd, air, pw, 36 mpg., \$19,800. 209-492-0270

**AUTOMOBILE ACCESSORIES**

Orbital polisher, hardly used. With wax and covers. \$10. 415-928-4469

Camper shell, Stockland, dark hunter green. Fits Chevrolet long bed 1988 to 1999. Exc. cond. \$500 925-447-4611

12 Bolt rear end axle, complete, \$250 209-239-1770

Tires, Brand new off 2001 Chevrolet H/D 4x4, LT245/75 16 inch 10 ply radial all terrain. \$300 925-447-4611

RACK-IT lumber rack. Fits Chevy/GMC long Bed, Ext Cab, 1988 through 2000. Painted White. \$300 or B/O Tool Box. fits full size truck. \$50 209-667-4310

ALL TERAIn tires and rims. Complete set off a GM 1 Ton 4WD. 8 lug 245/75/16. Like new, Less than 1k miles on them. \$250.00 obo 925-754-6390

14 inch TIRES: 14 x 7:00 good used bias TIRES fit many cars/great for pickup/trailer. 2 for \$20 925-447-7070

**BICYCLES**

Mens mountain bike, new tires, excellent condition \$125 925-736-7799

Mountain Bike, 21 speeds, 21 inch frame, black, good condition. \$50.00 925-606-4363

Cannondale super v 900 full suspension mt bike excellent condition \$700 b.o. 209-832-8820

Trek 560 road bike, 48cm chromalloy frame, Shimano components. \$100 obo. 925-447-8845

Cannondale T700 Touring Bike 21 in./53.3cm alum.frame, shimano sis 21 speed group,new continental 700x35 tires, ex. condition \$500.00 or b/o 707-645-8648

Trek 930 mountain bike, 1991 black Mens 16in frame,26in trail tires plus 2nd set of street tires and wheels. Good condition. \$225 OBO 925-449-6911

BMX Mongoose trick bike, 20-inch, great condition, \$75. OBO 209-823-0250

Boys 20 inch bicycle, Raptor Boom Tube, BMX. Excellent condition. \$50.00 925-292-1714

Centurion 12 speed, Sport-DLX Model CR-MO, 31-32 inch and the color is white. Good Condition, \$100 OBO. Call for details 925-634-8134

Bike Trailer and bikes: Bike Trailer \$75. Girls 10sp with upright handle-bars \$15. Boys 5sp bmx style bike \$15. 925-443-4413

2 bike rack, locking roof mount. Made in Sweden. THUE model 1060 \$150.oo, OBO. 209-825-0138

**BOATS**

14 foot aluminum fishing boat ex. condition extras \$700.00 925-447-4961

OMC factory service manual for all OMC two through six cylinder outboard motors. Has wiring diagrams, photos, etc. Comes is a 3 inch binder \$10 925-484-4099

1985 Reinall 18ft closed bow fish or ski 4.3 v6 runs well brown and tan dual battery setup reliable boat.\$3,000 209-858-5876

1995 900ZXi Kawasaki personal watercraft and shoreline trailer. 60mph and lots of fun. \$4000.00 Call after 6pm 209-551-4309

Boat 1985 Cajun 20 ft fully camouflaged,lots of storage,good shape. Great for hunting and fishing \$7,895 or best offer. 925-449-8734

Outboard motor, Seaking 6 hp in good condition. \$100. Call after 6PM. 925-706-8179

Anchor, trailer tail lights, marine antenna \$15.00 for all 925-447-6728

CATAMARAN, 1998 unique modern sailing catamaran combined with convenience of a power runabout. trailer-able. raising centerboard & rudders. \$20,000. 510-781-0437

25ft Apollo Fishing/Cruiser. 79 hull/85 I/O just overhauled. Sleeps 4, galley

& head. 93 Galv Tlr. Good Cond. Fun Salmon/Striper Boat \$15k 925-447-7455

Reinell 17ft Inboard/Outboard clean garage kept. V6 Cobra, fish finder under 150 hours.Asking 8,000 will take reasonable offer. 209-324-7912

91 Wellcraft 19ft V6, 250hrs, bimini top, stereo, trailer, assesories, excellent cond. \$8,300 or obo. always covered. 209-832-4535

1990 750 Yamaha Waverunner excellent condition low hours. \$1700.00 obo 925-292-1581

96 Glastron GS185, 150 hours, V6, 190HP Excell. Cond. \$10,500 Boat and Trailer. \$12,000 Boat, Trailer and Hydro-Hoist. 209-835-4099

27.5 foot 1979 Bayliner Victoria cruiser. 2 cabins, head/shower. Renewed engine/outdrive/upholstery/canvas. Family fishing boat. Trailer. \$12,500 209-478-7397

TOURNAMENT SKI BOAT 1997 MB Sports Boss LS200 351 EFI 315 HP, 158 hours, CD, extra clean, 4 blade prop, 18,300. 925-516-2198

**ELECTRONIC EQUIPMENT**

HiEnd home theater system \$400; N64 game system+games \$250; Pair hifi speakers \$50; 100+ prerecorded reel-to-reel tapes 925-736-7799

Stereo Speakers. Linear Phase Studio models, 125 watts rms with 3 drivers, tuned port. Excellent Condition. \$150 for pair. 925-443-2245

Two phone answerers, new, GE Model 2-9862, AT&T 1323, many features, \$25 each; 2-octave Melodion, U-blow-it keyboard. 925-455-0383

MacIntosh computer, Performa 6205+with printer and lots of software,15 yrs. old. \$300 for all. 925-449-6923

Sound Design AM/FM stereo unit, w/speakers, record player, dual cassette and equalizer. Storage space. Very nice cond. \$250/BO. After 5 pm. 925-449-1294

**GIVEAWAY**

Gas lawnmower, 3.5hp, 21 inch cut, rear bag. Tired and beat, but still runs. Will bring to LLNL. 510-636-1128

6 person spa in multilevel grade A redwood deck 22x35, both excellent. Remove both,includes all parts needed. Re-doing backyard, must go 925-462-3218

**HOUSEHOLD**

Range, 30-in Electric Maytag, Almond w/glass window in door, remodeling-excellent condition. \$100 209-848-1375

Modern solid walnut desk (\$125), Sony 17in TV (\$100), Room electrostatic airpurifier; \$95; Electric dehydrator \$25 925-736-7799

Stroller, Sit-n-Stand LXIII, navy & green plaid, great condition, \$100. Black samsonite soft luggage, 2 bags & large garment, \$75. 925-294-9022

Beautiful, functional, solid oak roll-top desk. Excellent condition, clean, stunning for den or living room. D20inch, H45inch, W54inch \$175obo 925-373-3146

Kenmore gas dryer, front loading. Good condition. \$50 925-243-0728

Oak dining room set: newly resurfaced round pedestal table, 4 chairs. Good condition. \$275 OBO. 925-484-4294

Refrigerator/freezer. Side-by-side. Ice-maker. Off-white. Good condition. \$150. 925-443-5213

Turkish Carpet, approx. 11ft\*14ft

bought in Turkey and never walked on. Must see to appreciate. 1000.00 OBO, 510-357-2342

Collectors Moving Sale: Oriental rugs, japanese prints, pottery, sterling, antiques. April 7, 9 to 5, 5670 Weaver Place off Skyline Blvd, Oakland. 510-531-5804

Brown sofa, good cond. \$40 510-792-1538

Matching mahogany 3-drwr night tables, \$50; 2-drwr file, wheels, hangers, \$25; 24X35-in tilt table and drafting machine, \$45. 925-455-0383

Sectional Sofa/Corner Group with 2 recliners. Excellent cond. (blue/grey/mauve). \$350 OBO. 925-634-7513

Refrigerators, (1) GE 21.8 cu ft., side by side \$150; (2) Whirlpool 17.1 cu ft., top freezer \$75. Call after 6pm 925-447-2359

Refrigerator, Maytag, 18.6 cu. ft., 6 yrs. old, w/ice maker, excellent cond. \$300. 925-449-6923

Refrigerator, Kenmore, 19 cu ft, almond color, approx 20 year old. In good shape and good working order. \$75 obo. 925-443-8270

Dark Oak entertainment center . Excellent condition \$300. 925-443-3467

Kenmore Microwave. Works Great. \$20. 925-443-3075

Upholstered swivel chair, mauve/rose, like new, \$75; cedar outdoor loveseat glider, \$55; mens brown leather jacket, removable lining, like new, \$95. 925-454-9291

36 in. wide glass door w/casing etched w/ hummingbird/rose pattern new, very nice \$300 or b.o. 925-243-0366

Carpet Remnant-Karastan Kekes off-white grid pattern, 9 feet 6 inches X 22 feet. Cost \$40/sq. yd. Sell for \$200. 925-443-6165

Portable GE washer w/sink attachment. 1 yr old. Excellent condition. Asking \$400. Call after 5:30pm or leave a message. 209-567-0727

Girls white desk and chest of drawers w/matching head & foot boards (4 pieces). Good condition. \$350/BO. After 5pm. 925-449-1294

Blue sectional sofa w/ dual recliners and hide-a-bed. Moving, must sell! \$250. 925-371-1167

**LOST & FOUND**

Lost: Acrobat 4.0 CD and documents, building 132S parking lot facing Center for Global Security Research. Please contact at 925-449-4992.

Found 2 keys along outside perimeter of LLNL on Greenville Road between east gate and East Avenue. Perhaps they fell from a badge holder. 925-831-1569

**MISCELLANEOUS**

Fisher Price Toots the Train. Fully automated and in excellent condition. Original price \$60.00 sell for \$30.00 209-832-2862

Boy/Girl 0-3 yrs. clothes, Old Navy/Gap/Gymboree brands. Exersaucer, car seats, oak changing table, toys, etc. Excellent condition and prices. 209-832-2862

Oakdale Rodeo (4/14&15) tickets. Sponsor queen contestant and save!!-avail until 4/13. \$12 gen. adm., gate price \$15. Lv msg; will call back! 209-835-4118

Sears heavyduty sander (\$70), scroll saw (\$70), small hydraulic jack \$15, fish tank & accessories \$25 925-736-7799

Forced air gas furnace, updraft 50 kBTU, 2 ton equiv., 3 yrs old, \$200. 925-294-9022

Craftsman 10 inch Radial Saw - \$200.00 925-447-1126

Battery powered Jeep, new battery, well used but runs good, foward and reverse gears \$40 OBO. 925-447-4797

Dunlap/Sears 6.25-in skill saw, 7 amp, 2 blades, edge guide, case, \$35. One-drawer letter file with lock, \$10. 925-455-0383

Ladies Wedding Set - .5ct solitaire w/6 smaller diamonds surrounded by 12-diamond band. GORGEOUS Originally \$5K - will sell for \$2,500. 925-245-0626

Washer/Dryer, Lady Kenmore, \$100 for both; Washer, GE \$75; Dishwasher, built-in, GE, \$50. Call after 6pm. 925-447-2359

Wedding Dress, gorgeous, Mori Lee, raw silk L/S, beaded top, plain skirt, size 6-8. New \$900.00, sell for \$200.00 925-455-5066

MOVING? Full-sized cardboard Wardrobe boxes. Perfect for storing clothes or moving closet to closet. \$5 each. Paid double+. Perfect condition. 925-634-1110

5hp, BCS Rear Tine Tiller, \$1600 new, used twice \$800. B&D 18in electric lawnmower \$100. B&D 2hp electric edger \$40. McCulloch gas trimmer \$75. 925-443-8449

Yours, Mine and Ours Garage Sale March 31 and April 1st 8:00 am to 3:00 pm 1385 Berkely Place, Livermore 925-447-5432

Avon Collectables, pins, etc. 209-835-0368

HD Motorcyle Helmet, Leather. Complies w>DOT standards. X-Lg. 1/2, Bad Boy NEVER WORN. New \$165.00 asking \$80.00 (still in the box) 925-373-1964

One new 14 x175/70 Michelin A4 TIRE on 4 bolt Escort rim \$22- also similar size good used tire unmounted 925-447-7070

**MOTORCYCLES**

1988 - Honda CR 125, FMF pipe, silencer, spark arrestor, rebuilt motor and carb, new radiators, chain, etc. Much invested, FAST and ready to go. \$1,500 209-832-8723

Motorcycle helmet, Red, great condition, Shoei Great price. 510-581-1863

1980 - kz750b-h2 twin \$100 or b.o. can run, needs tlc 925-243-0366

1981 - IT 465 YAMAHA, good condition, new rear tire, only rode on trails, \$600 OBO 925-606-6352

**MUSIC INSTRUMENTS**

Lab Dance Band (Swing Band) needs musicians; trumpet, trombone, sax players. Wed. night rehearsals South Cafeteria. 925-443-2245

Pearl Export Drum Set, White 5pc plus additional symbols and extras, please call for more information. \$900 or best offer 925-373-8320

Fender - JG12-CE 12 string acoustic electric cutaway, \$275.00 925-586-2254

Fender delux 90 guitar amp-DOD grunge distortion pedal-under one year old \$250.00 209-835-2416

**PETS & SUPPLIES**

Free Small dog, cream color, very good with kids, animals, people. Very happy animal. 209-530-9422

Rottweiler, male 6yr. old. active outside dog, obedience trained, needs attention. Happy friendly, excellent disposition. 925-462-4499

Loveable very friendly rescued dog



INTERNAL TRANSFER OPPORTUNITIES

Tag	Requisition	Classification	Title	Organization
EP	1909	196	Administrative operations manager	EPD Department Office
HC	1749	200	Emergency preparedness section leader	Hazards Control
CO	1897	220	Postdoctoral researcher	Scientific Computing & Communications
CH	1918	242	Chemist	Chemistry & Materials Science
EZ	1907	270	Physicist	Energy & Environment
AI	1891	285	Computer scientist	Administrative Information Services
CO	1420	285	Computer scientist	Computer Applications Organization
CO	1775	285	Computer scientist	Systems & Network Department
CO	1898	285	Computer scientist	Scientific Computing & Communications
CO	1899	285	Computer scientist	Scientific Computing & Communications
CO	1934	285	Computer scientist	Computer Applications Organization
ME	1794	338.1/2	Engineering/scientific coordinator	Mechanical Engineering
CH	1889	338.1/2	Space action team project coordinator	Chemistry & Materials Science
CO	1776	393.2	Systems & network senior associate	Systems & Network Department
BS	1928	405.3	IRB office secretary	Biology & Biotechnology Research
DT	1756	405.3	Administrative specialist III/technical release representative	Defense & Nuclear Technologies
HS	1822	405.3	Administrative specialist III	Health Services
NF	1841	405.3	Administrative specialist III	National Ignition Facility Programs
NF	1865	405.4	Administrative specialist IV	National Ignition Facility Programs
EZ	1831	538.2	Technical coordinator/technical release representative	Energy & Environment

needs a new home. Male German Shepherd/Greyhound mix. Wonderful with kids. Already fixed/current shots. 209-832-8541

Cocker Spaniel - blonde, beautiful & loving. Moving and cannot take with. Ideal for active family with children. Free to loving home. 209-477-5879

RECREATION EQUIPMENT

Golf clubs set&bag \$45, Legos set for kids, many pieces and board \$45 925-736-7799

Ford 8N tractor with 2-blade plow. \$2,000/BO 707-823-4459

1985 HONDA 250R ATC, Runs and looks great. \$1,200 209-832-8723

NortcTrack manual treadmill - \$150.00 HealthRider - \$75.00 LifeCycle - \$200.00 925-447-1126

Cardio glide \$20, Ab roller \$10. excell cond. 925-447-4611

1996 Damon UltraSport 28 ft Motorhome. Too many extras to mention all. Great condition. 32K miles. \$33,500 925-525-1568

1994 Weekender cabover camper model 1010, extended queenbed, A/C, Awning, extention mirrors and extended tow bar included, great shape, \$8,750 OBO 925-447-4797

Garrets Metal Detector GTAX-1000 full discrimination, VCR tape like new. Find coin, gold, silver, antiques, retails \$600 asking \$400 OBO. 925-606-9847

RIDESHARING

Express your commute, call 2-RIDE for more information or visit the web site at <http://www-r.llnl.gov/tsmp/> for more information

Turlock - WANTED: Vanpool or ride share from Turlock/ Patterson area. 8:00-4:45 Contact me if you have an open seat. 209-602-5168, ext. 2-9505

Modesto - Need a standby person to ride in vanpool. \$5.00/day. Ride available 95% of the time. Leave 6:40am/leave Lab 4:45 pm. 209-576-0217, ext. 2-7459

Martinez - Pleas. Hill-Driver/rider needed for existing carpool. Martinez or along 24/680 route to Lab, 7:45-4:30, non-smoker. 925-229-2240, ext. 3-5933

Ceres/Modesto - 14 psgr Enterprise luxury vanpool, 7:00-3:30, \$120/month 209-537-0229, ext. 3-6631

Milpitas - Ride/drive or share from Milpitas or along 680/84 route to Lab. reg. hours. 408-263-8822, ext. 2-8546

Lathrop - Need a rider/driver for an informal carpool. Drive 3-4 days on alternating weeks. 7:45-4:30. 209-

858-1521, ext. 4-3279

PATTERSON - Vanpool has 3 seats available in April. Work hours 7:30-4:00. 209-892-2118, ext. 2-9502

SERVICES

House Painting - Exterior specialist w/15 yrs experience. Free estimates and discount on the paint. 925-447-5132

Web design and web hosting, best rates, starting at \$90/page. 510-252-9441

PARENTS troubled by TEEN behavior? What to do now, before too late? Free info on ToughLove, & Residential Treatment Facilities. (LLNL Meeting) 925-447-7070

SHARED HOUSING

MODESTO - ROOM for rent in condo. Wanted non-smoker, n/d, house privileges, w/d, \$450. per mth. 209-492-0270

TRUCKS & TRAILERS

1994 - GEO,Tracker,4X4,automatic,towable,p ower steering,power brakes,air cond,removable hard top,keyless entry,great mileage,66,000 miles,\$5295. 209-836-0611

1970 - Jeep CJ Rebuilt engine & transmission, new soft top, trail rack, extra wheels, new front seats. \$2,500 OBO 925-371-2531

1990 - NISSAN SE-V6 extended cab pickup: 5 sp, cruise,ac,am/fm/cas, Brahma camper shell, bedliner, new breaks, runs great,90k mi.,ORIG OWNER \$5000 925-983-0138

1991 - Ford F-150 XLT s/bed,a/c,p/s,p/b,p/w,p/l,c,t/whl,2/tan ks,shell, B/I,Tow pkg.exit. cond 59k.mi.\$8900. 510-582-1494

1984 - Jeep J-10 4X4 pickup, 110,000 miles, \$2900. 925-447-8804

1989 - Extended cab GMC SLE, LOADED, long bed, heavy duty 3/4 ton, Full power, CC, A/C, new tires. great condition \$7,800 209-667-4310

1995 - Chevy Tahoe LS 4dr 4x4 Emerald Green, tow package, grill/hood/headlight shields, running boards, skid plates, CD, 88K mi, \$17850 925-372-0365

1997 - Ford, F150 XLT, 3 Dr., 8 foot bed, tow package, 71K, V8, A/T, air, tape, bedliner, toolbox, \$13,900 510-245-2102

WANTED: 49 - 57 Dodge Power Wagon pickup. Newer models also considered. 925-846-0645

1986 - GMC 1/2 ton 350 ci auto air p/s 160k mi long bed, shell good work truck \$2000 b/o 925-449-4262

1999 - Four stock chrome rims from a 1999 full size Chevy truck. \$125.00/OBO Call after 6pm 209-551-4309

1985 - GMC Work Van runs good, new transmission, good tires. 2k obo 925-640-2966

1986 - Dodge Custom Van Conversion, storage, icebox, comfort-able bed, excellent tow vehicle, 91K, new Michelin LT tires/ battery/wiring/brakes. \$3500. 925-625-5938

1993 - GMC Sonoma SLE 4x4, V6 4.3L, 1/2 TN, AT, PS, CC, AC, Ext Cab, Shell, Bedliner, tilt, security, wide wheels, 130K miles, 1 owner, xtra clean, \$8200. 925-937-6267

1972 - Dodge 3/4 ton automatic, 400. \$1,200.00 OBO. 925-456-3010

1986 - Dump truck, GMC3500, 4X4, new 6.5L, diesel and turbo, flat bed, \$7500 OBO 925-443-3720

1997 - Toyota 4Runner, 4 WD, loaded with extras, 63K miles, original owner, \$17K. 925-426-9886

Cab-over camper shell with toolbox-es. \$150 or trade for camper shell 925-443-7828

1999 - Dodge Dakota 4x4 x-cab Sport, V8,AT,PW, PL,PM,AC,CC, TILT,bedliner,tonneau cover, tow pkg.Blue-ext/black-int, 43k miles, \$19,000. 408-506-1520

1978 - 3/4 T old beater chevy truck,strong rebuilt 4 bolt 350,rv cam,4 sp., clutch is shot,good fixer or great for parts. \$800 firm 925-684-9252

1995 - 19FT Wilderness Travel Trailer, A/C, M/W,Heater,Refrig, Stove, Awning. Very Good Condition. Must sell,retiring. \$7,900 OBO 707-570-2775

1997 - F150 super cab, long bed w/liner, 3 door, AT, AC, PV, PS, new tires. \$16,500. 925-447-4711

1998 - Chevy 3500 Silverado Extended Cab one ton dullely,AM/Fm Cass,PW,PDL,Tilt wheel,AC,AT,Bed Liner, low miles asking \$21,500 925-373-1089

1998 - Dodge Dakota extended cab. 4 cyl, 5 speed, 28,400 mi. Very nice: Alloys, fog lights,bed liner, 4/6 drop. \$13,500. Mike or Brian. 925-443-1390

1982 - Coachmen 20ft. fully self-contained trailer.\$1500.00 209-952-5305

Trailer, car hauler, 6 ft. X 12 ft 4 in long, with ramps.Tandem axle, new tires, heavy duty. \$1500. FIRM 925-443-3720

1985 - Nissan King Cab 4X4 5 sp.,air, \$2500 OBO 925-443-4350

1989 - Ford F350 Crew Cab Lariat, Brn, Dually, PS, PB, AC, Cruise, Manual, 5th wheel, bedliner, running boards. 157,000+ miles. \$7,900.00 OBO. Donna 925-449-0120

1992 - Chevy Astro 8 Passenger Extended Van, AT, PS, ABS, AC (front & rear), CC, Tilt, PL, PW, AMFM Cass, Alloys, Exceptional, \$6,000 925-846-1871

Stockland Campershell. White, fits full size Ford trucks. \$250 925-373-1754

1994 - Toyota forerunner SR5 roof rack,cd stereo,tow package,security system,great condition,2WD,98,000 miles, 14,000 obo. 925-755-2753

1997 - Ford F-250 HD, 460 V8, 4X4, Extra Cab, Long Bed with Liner, Fully Loaded with low mileage. Excellent Condition 925-455-5812

1999 - Toyota-Tacoma-Xtra Cab V6 5-speed, Off-Road package, AC,PW,PL,AM/FM CD w/ stacker, Loaded in great condition with VERY Low Miles. Asking \$19,500.00 925-449-9255

VACATION RENTALS

So Lake Tahoe, 3-br + loft, slps 12, hot tub, full kitchen, close to Heavenly, walk to lake, 1-mi to Casinos 925-449-2112

Maui, HI - Kahana Reef oceanfront 1BR/1BA condominium. Beautiful two-island view, oceanside pool, and BBQs. Low LLNL rates for year-round reservations. 925-449-0761

Tawin Harte - Fully furnished.2bdr 2full bath.TV,VCR, washer,dryer,microwave, dishwasher and more. Close to Pinecrest Lake. \$150wknd \$300wk. 925-443-2808

SOUTH LAKE TAHOE - 3 Bedroom 2 Bath Chalet, nicely furnished, all amenities, close to all skiing, few weekends left,most weekdays available,Hurry to Ski!! Reserve Now!! 209-599-4644

Pinecrest - (Off Sonora Pass Road), 3 bdrm/2 bath, frplc w/wood, microwave, barbecue, pool table, large deck and view up No. Fork of Tuolumne, \$175/wknd. 925-449-5513

Southern MAINE COAST - Unique getaway, two beachfront homes on wooded acreage, some openings Summer/Fall, seven mile sandy beach, call for details. 925-516-7524

SEA RANCH - Oceanview home. No smoking. No pets. Adults only. 2BR(KQ)/2BA 1700sqft. Hike. Bike. Whale watch. Kayak. Swim. Tide pool. 925-443-5086

HAENA, KAUAI - - Private house and/or studio on the scenic north coast near Hanalei Bay - great beaches, hiking, boating and golf. House-\$125/day, studio-\$75/day. 831-479-3441

Berkeley - 4-bedroom, 1-bath, deck, yard. Rockridge, Oakland near UCB, BART, freeway. June 1 or 15th through August 24. Non-smoking. 510-652-7825

WANTED

Wanted: Early 1990s Honda Accord LX dependable & reasonably priced. 925-516-1180

Moving boxes wanted. Needed for a move on 4/13. 925-625-0787

wanted--Little Litton under the counter micro wave oven-in useable condition-already have hanging apperatus. 925-447-0769

Jeep or Toyota Landcruiser in good running condition. 209-952-5305

Help needed with summer childcare in Oakland. Two kids, two months (June July), two days a week. Needs own car. 510-530-8368

Wanted : apartment/house for short term ( May ñ August ) in Livermore or somewhere close to BART. 925-245-0717

Wanted a 5 hp Horz.Shaft gas engine running. 925-449-4262

Dresser with 9 large drawers (Solid Wood) in good to excellent condition. 925-625-0513

a recumbent exercise bike, must be in good quality and good condition. 209-599-7199

Wanted- Person to help with yard-work, painting, auto repair, odd jobs, weekends or evenings Livermore or Pleasanton 925-447-7070

Have Old Erector Set made by Gilbert No. 10041. Need project book to copy or something close, mines lost. 925-706-8179

Hooked on Phonics Game for child with learning disability. 925-449-3152

Wanted: Old stereo equipment, speakers, receivers etc., working or not. 925-443-2954

Tile installer. Have tile, need installed by reasonable, experienced and qualified individual(s). References requested. 925-462-6503

Cross Country Ski Boots, 3 pin, size 12(46) 925-443-5565

WANTED- utility trailer, at least 5X10 with 30 inch sides. Willing to pay up to \$1000 209-786-3910

Need after school care for my two children, ages 6 and 11 (Monday through Friday). 925-449-4093

Looking for a Mac or PC with printer for childrens first computer. Reasonable price. 209-832-7112

HOUSE to rent (3 bdrm) near Livermore for 1 yr from mid-Aug for visiting scientist w/family. Can swap for 4 bdrm house in Paris suburb (near Saclay). 925-455-6434

Hog Fencing--need 13 panels 16ft.long x 5ft. tall, heavy gage steel I will haul 925-447-6834





# THE BACK PAGE

## DIRECTOR’S OFFICE

Continued from page 1

help us understand earthquake phenomena.

I would like to take this opportunity to thank all the speakers, along with keynote presenter Larry Smarr, who discussed the coming of a new information infrastructure, and how the Laboratory’s scientists and engineers in the 1970s served as mentors to the designers of today’s supercomputers.

Just as important were the poster sessions that provided an overview of virtually every aspect of science and technology at the Laboratory. These 49 posters, video demonstrations and other presentations engaged a large number of scientists and assured excellent attendance from every corner of the Lab.

## ENGINEER

Continued from page 1

to 12 years ago few had foreseen the impact of the Internet.

“This will be a fascinating project to work on. The academy brings together a lot of different people from different disciplines.”

This assignment is a perfect fit for Dooher who, though still in his early career, already has a broad base of experience in research projects that cut across many fields and disciplines. Having done his undergraduate and master’s work in thermal systems and power plant design before getting a PhD. in probabilistic risk and systems analysis, Dooher never dreamed “I’d get into environmental work.”

Dooher is the driving force behind the development of GeoTracker, a geographic information system and database that provides online access to environmental data for the purpose of tracking regulatory information about underground fuel tanks, fuel pipelines and public drinking water supplies.

This “evolving” internet accessible database, which came online statewide about a year ago, allows

More importantly, the posters sessions provided an opportunity for interactions between the Lab’s scientists as well as our invited guests.

Without the enthusiasm, dedication and efforts of all involved, our Science Day would not have been the successful event that it was.

Extraordinary science and engineering make the Laboratory what it is, and our Science Day proved just that. Through Science Day we were able to give our many outstanding scientific and technology accomplishments the recognition they deserve.

Unfortunately, with only a daylong program, only a fraction of our significant accomplishments could be presented in any depth beyond a poster session. Which brings us to the next step. Should Science Day become an annual or biannual event?

We would like to hear from you, whether you

researchers and regulators to locate, monitor and model existing and potential groundwater contamination in California. Laboratory studies for California of leaking underground fuel tanks and MTBE contamination have both contributed to and benefited from GeoTracker.

The development of this cutting-edge computational tool has required not only scientific and technical know-how, but the diplomatic skills to gain the support of water and regulatory agencies, as well as other stakeholders, many of whom have competing interests.

The idea is for those agencies to contribute to and review the information in the database, Dooher said. “With lots of eyes looking at the information, mistakes get caught.

“It’s important for agencies to contribute to the database,” he said, explaining that the exact locations of many wells and fuel tanks are not known. “Access to this centralized online database will improve management of underground storage tanks and public drinking water wells. It won’t reduce the cost of cleanup, but it will reduce and prioritize costs of planning issues around environmental cleanup and those can be significant.

were able to attend all of Science Day or not. We want to know what you liked, and if you did not attend, what would make you attend the next gathering.

A forum for employee input has been set up on the Science Day Website, located at <http://stars.llnl.gov/ScienceDay>. Click on “forum” to provide your input.

I urge you to take the time to send us your thoughts on this celebration of science and technology at Livermore. Scientific and technical excellence applied to national challenges is the vital force that makes the Laboratory thrive. Please take this opportunity to let us know how we can pay further tribute to the Laboratory’s strengths. We look forward to hearing from you.

*Jeff Wadsworth is the deputy director of Science and Technology.*

“We’ve built something that, compared to other states, is at the top,” Dooher said. “This is a very important project for the state’s environmental cleanup effort.”

He is quick to distribute credit for his success to his Environmental Restoration Division colleagues and collaborators Dave Rice, Anne Happel, Walt McNab and Rolf Halden. Current Laboratory and state collaborations are Bryant Hudson, Jean Moran, Gail Eaton and Lee Davisson.

Encouraged to apply for the fellowship by Ellen Raber, deputy head of the Environmental Protection Department, Dooher said, “I was surprised to be asked and really surprised to be selected. This is an honor.”

The day of his interview with *Newsline*, Dooher began preparing for his June assignment in Washington by wearing a suit and tie, a notable departure from the informal attire familiar to his colleagues.

“It’s a different viewpoint back there in Washington. It’s going to be a new experience for me,” Dooher reflected. “It was a huge growth thing for me coming to the Lab. This is going to be another huge growth experience.”

## DAS

Continued from page 1

Merced and LLNL, community colleges, state universities, industry and local school districts will be supporting and participating in center activities.

“I’m delighted to work with our partners at the UC Office of the President, UC Merced, K-12 school districts and the Lawrence Livermore National Laboratory in this novel educational concept,” said Rick Freeman, Edward Teller Professor and chair of the Department of Applied Science at UC Davis.

The center is named after physicist and Director Emeritus Edward Teller, co-founder of the Laboratory and founding chair of the Department of Applied Science at UC Davis.

“We’re pleased to be able to participate in this partnership with UC Davis and UC Merced,” said Jeffrey Wadsworth, the Lab’s deputy director for Science & Technology. “The center will provide a place for teachers to build on science and technology teaching strategies for grades K-12.”

The center is expected to provide learning opportunities supporting professional development throughout a teacher’s career.

“The UC Office of the President is enormously pleased to provide funding for this important academic outreach initiative,” said UC Assistant Vice President Robert Polkinghorn. “I am optimistic that the center will serve as a model for other academic collaborations involving UC, community colleges and K-12.”

For those K-12 teachers who can’t make the trek to Livermore, facilities at the Tri-College Center located at Merced Community College in the San Joaquin Valley will serve as a satellite campus.

“The center is a fantastic resource to help teachers from various disciplines develop their teaching skills and acquire content knowledge,” said Richard Farnsworth, LLNL Science & Technology Education Program (STEP) manager for K-12 education and outreach and interim director of the center. “It will be able to address the needs of beginning teachers and help experienced teachers enhance their technical base and leadership skills.”

The consortium will initially focus on science and technology instruction. Center officials will assess the member districts to determine the faculty needs in science and technology and provide developmental opportunities. The science and technology focus will combine the existing professional development outreach programs available from STEP and the teaching resources of UC Davis’ Department of Applied Science to leverage the scientific resources of the Laboratory.

The consortium will collaborate with the UC Davis School/University Partnerships, which works with the California subject matter projects to provide professional development opportunities to 24 Sacramento-area K-12 schools.

“One of the unique features of the center is its close proximity to the research facilities and staff of the Laboratory,” said Don Correll, director of STEP.

“The initial focus will be on science education that

is aligned with the new California science content standards. The activities will help California in its goal to use the content standards as a commitment to helping teachers identify what students actually need to know.”

Center officials said the new building, which will be approximately 3,400 square feet, will include a wet laboratory classroom and a computer technology and lecture classroom. Both classrooms are equipped with high-speed computer network connections and overhead projection systems to model the latest teaching tools and instruction methods. The facility is scheduled to open Sept. 1, though classes for K-12 teachers are expected to begin in the summer in the Department of Applied Sciences building.

Farnsworth said that the center may also offer advanced placement science classes for students who otherwise would not have access to them.



NEWSLINE  
UC-LLNL  
PO Box 808, L-797  
LIVERMORE, CA 94551-0808

## WEB

Continued from page 1

izational Development Division within Human Resources, which created the Web page. “LLNL is committed to helping employees’ manage work-life balance because in doing so, this will promote an environment that will enhance both organizational and life goals.

“This investment in employees’ well-being is absolutely critical to organizational excellence and in

the attraction and retention of the best available workforce,” Wong added.

The Website is located at [http://eodd-server.llnl.gov/work\\_life\\_guide/index.html](http://eodd-server.llnl.gov/work_life_guide/index.html). Once you get there, you’ll find valuable information on employee and family health issues, child care, elder care, the Employee Assistance Program, Laboratory policies and procedures, the Employee Services Association and more.

If you have any questions or comments, contact Art Wong, 2-9368.